





## 中华人民共和国国家知识产权局

邮政编码: 100037 北京市阜成门外大街2号万通新世界广场8层 中国国际贸易促进委员会专利商标事务所 龙传红 0013178		发文日期 
申请号: 021020264 		
申请人: 东方工程公司		
发明创造名称: 渗碳方法和渗碳设备		

## 第一次审查意见通知书

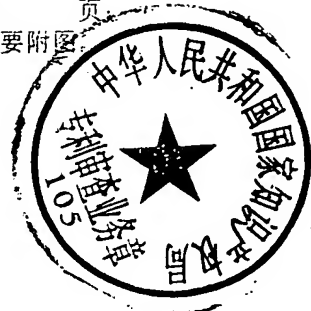
1. ☒ 应申请人提出的实审请求, 根据专利法第 35 条第 1 款的规定, 国家知识产权局对上述发明专利申请进行实质审查。  
☐ 根据专利法第 35 条第 2 款的规定, 国家知识产权局决定自行对上述发明专利申请进行审查。
2. ☒ 申请人要求以在: JIP 专利局的申请日 2001 年 01 月 19 日为优先权日,  
 专利局的申请日 年 月 日为优先权日,  
 专利局的申请日 年 月 日为优先权日,  
 专利局的申请日 年 月 日为优先权日,  
 专利局的申请日 年 月 日为优先权日。  
☒ 申请人已经提交了经原申请国受理机关证明的第一次提出的在先申请文件的副本。  
☐ 申请人尚未提交经原申请国受理机关证明的第一次提出的在先申请文件的副本, 根据专利法第 30 条的规定视为未提出优先权要求。
3. ☐ 申请人于 年 月 日和 年 月 日提交了修改文件。  
 经审查, 申请人于: 年 月 日提交的 不符合实施细则第 51 条的规定;  
 年 月 日提交的 不符合专利法第 33 条的规定;
4. 审查针对的申请文件:  
☒ 原始申请文件。 ☐ 审查是针对下述申请文件的  
 申请日提交的原始申请文件的权利要求第 项、说明书第 页、附图第 页;  
 年 月 日提交的权利要求第 项、说明书第 页、附图第 页;  
 年 月 日提交的权利要求第 项、说明书第 页、附图第 页;  
 年 月 日提交的权利要求第 项、说明书第 页、附图第 页;  
 年 月 日提交的说明书摘要, 年 月 日提交的摘要附图;
5. ☐ 本通知书是在未进行检索的情况下作出的。  
☒ 本通知书是在进行了检索的情况下作出的。  
☒ 本通知书引用下述对比文献(其编号在今后的审查过程中继续沿用):  

编号	文件号或名称	公开日期(或抵触申请的申请日)
1	JIP 平 2000-129418A	2000 年 5 月 9 日
2	US5828582A	1998 年 10 月 27 日

## 6. 审查的结论性意见:

☐ 关于说明书:

 21301  
 2002.8

 回函请寄: 100088 北京市海淀区蓟门桥西土城路 6 号 国家知识产权局专利局受理处  
 (注: 凡寄给审查员个人的信函不具有法律效力)


申请号 021020264

- ☐ 申请的内容属于专利法第 5 条规定的不予授予专利权的范围。  
☐ 说明书不符合专利法第 26 条第 3 款的规定。  
☐ 说明书不符合专利法第 33 条的规定。  
☐ 说明书的撰写不符合实施细则第 18 条的规定。

☒ 关于权利要求书:

- ☐ 权利要求 不具备专利法第 22 条第 2 款规定的新颖性。  
☒ 权利要求 1-8 不具备专利法第 22 条第 3 款规定的创造性。  
☐ 权利要求 不具备专利法第 22 条第 4 款规定的实用性。  
☐ 权利要求 属于专利法第 25 条规定的不予授予专利权的范围。  
☐ 权利要求 不符合专利法第 26 条第 4 款的规定。  
☐ 权利要求 不符合专利法第 31 条第 1 款的规定。  
☐ 权利要求 不符合专利法第 33 条的规定。  
☐ 权利要求 不符合专利法实施细则第 2 条第 1 款关于发明的定义。  
☐ 权利要求 不符合专利法实施细则第 13 条第 1 款的规定。  
☐ 权利要求 不符合专利法实施细则第 20 条的规定。  
☐ 权利要求 不符合专利法实施细则第 21 条的规定。  
☐ 权利要求 不符合专利法实施细则第 22 条的规定。  
☐ 权利要求 不符合专利法实施细则第 23 条的规定。

上述结论性意见的具体分析见本通知书的正文部分。

## 7. 基于上述结论性意见, 审查员认为:

- ☐ 申请人应按照通知书正文部分提出的要求, 对申请文件进行修改。  
☐ 申请人应在意见陈述书中论述其专利申请可以被授予专利权的理由, 并对通知书正文部分中指出的不符合规定之处进行修改, 否则将不能授予专利权。  
☒ 专利申请中没有可以被授予专利权的实质性内容, 如果申请人没有陈述理由或者陈述理由不充分, 其申请将被驳回。

☐

## 8. 申请人应注意下述事项:

- (1) 根据专利法第 37 条的规定, 申请人应在收到本通知书之日起的肆个月内陈述意见, 如果申请人无正当理由逾期不答复, 其申请将被视为撤回。  
(2) 申请人对其申请的修改应符合专利法第 33 条的规定, 修改文本应一式两份, 其格式应符合审查指南的有关规定。  
(3) 申请人的意见陈述书和/或修改文本应邮寄或递交国家知识产权局专利局受理处, 凡未邮寄或递交给受理处的文件不具备法律效力。  
(4) 未经预约, 申请人和/或代理人不得前来国家知识产权局专利局与审查员举行会晤。

## 9. 本通知书正文部分共有 2 页, 并附有下列附件:

- ☒ 引用的对比文件的复印件共 2 份 19 页。 ☐

审查员:

2004 年 3 月 16 日

审查部门 审查协作中心

21301  
2002 8

回函请寄: 100088 北京市海淀区蓟门桥西土城路 6 号 国家知识产权局专利局受理处收  
(注: 凡寄给审查员个人的信函不具有法律效力)

## 第一次审查意见通知书正文

经审查, 具体意见如下:

1、权利要求 1 请求保护一种渗碳方法, 对比文件 1 (JP 平 2000-129418A, 说明书摘要、附图 1) 公开了一种渗碳方法, 在 1.33-13.3 千帕的压力下于渗碳炉 1 中用饱和链烃对钢质品 2 进行渗碳。权利要求 1 与对比文件 1 公开的内容相比, 其区别在于: (1) 权利要求 1 中的渗碳气体中一氧化碳含量不大于 30% 而对比文件 1 没有公开渗碳气体中一氧化碳的具体含量; (2) 权利要求 1 中在渗碳的同时分析渗碳气体组成并根据分析结果来调节温度、压力或气体组成。对比文件 2 (US5828582A, 说明书第 1 栏第 12 行至第 6 栏第 60 行) 公开了一种可用于金属渗碳过程中调节气体产生的装置 (如限定渗碳气体的组分含量保持在 40% 的氮气、40% 的氢气和 20% 的一氧化碳), 通过氧传感器或温度传感器来调节渗碳气体的组成。由此可知, 对比文件 2 公开了上述区别技术特征, 由于对比文件 2 和对比文件 1 同属金属渗碳领域, 对于本领域技术人员而言, 在对比文件 1 的基础上结合对比文件 2 来得到权利要求 1 的技术方案是显而易见的, 因此, 权利要求 1 请求保护的技术方案不具有突出的实质性特点和显著的进步, 不符合专利法第 22 条第 3 款有关创造性的规定。

2、权利要求 2 和 3 的附加技术特征已被对比文件 2 (出处同前) 所公开, 因此, 当引用的权利要求不具有创造性时, 权利要求 2 和 3 请求保护的技术方案也不具有突出的实质性特点和显著的进步, 不符合专利法第 22 条第 3 款有关创造性的规定。

3、权利要求 4 的附加技术特征是: 通过分析氢含量来分析渗碳过程中气体的组成。对于本领域技术人员而言, 上述附加技术特征是常规手段, 并且采用这种手段也没有给本申请带来预料不到的技术效果, 因此, 当引用的权利要求不具有创造性时, 权利要求 4 请求保护的技术方案也不具有突出的实质性特点和显著的进步, 不符合专利法第 22 条第 3 款有关创造性的规定。

4、权利要求 5 请求保护一种渗碳设备, 对比文件 1 (出处同前) 公开了一种在 1.33-13.3 千帕压力下渗碳设备, 包括渗碳室 1、加热装置 3、压力控制装置 7、气体供给装置 5 等。权利要求 1 与对比文件 1 公开的内容相比, 其区别在于: 权利要求 1 还包括气体分析装置、气氛气体组成调节装置、显示分析结果的信息显示设备。

对比文件 2 (出处同前) 公开了一种可用于金属渗碳过程中调节气体产生的装置 (如限定渗碳气体的组分含量保持在 40% 的氮气、40% 的氢气和 20% 的一氧化碳), 包括氧传感器或温度传感器、气体组成调节装置和显示分析结果的信息显示设备。由此可知, 对比文件 2 公开了上述区别技术特征, 由于对比文件 2 和对比文件 1 同属金属渗碳领域, 对于本领域技术人员而言, 在对比文件 1 的基础上结合对比文件 2 来得到权利要求 4 的技术方案是显而易见的, 因此, 权利要求 4 请求保护的技术方案不具有突出的实质性特点和显著的进步, 不符合专利法第 22 条第 3 款有关创造性的规定。

5、权利要求 6 和 7 的附加技术特征已被对比文件 2 (出处同前) 所公开, 因此, 当引用的权利要求不具有创造性时, 权利要求 6 和 7 请求保护的技术方案也不具有突出的实质性特点和显著的进步, 不符合专利法第 22 条第 3 款有关创造性的规定。

6、权利要求 8 的附加技术特征是: 气体分析装置是氢传感器。对于本领域技术人员而言, 上述附加技术特征是常规手段, 并且采用这种手段也没有给本申请带来预料不到的技术效果, 因此, 当引用的权利要求不具有创造性时, 权利要求 8 请求保护的技术方案也不具有突出的实质性特点和显著的进步, 不符合专利法第 22 条第 3 款有关创造性的规定。

基于上述理由, 本申请不具备被授予专利权的前景。如果申请人不能在本通知书规定的答复期限内作出有说服力的陈述, 本申请将被驳回。

# THE PATENT OFFICE OF THE PEOPLE'S REPUBLIC OF CHINA

Address: 6 Xi Tu Cheng Lu, Haidian, Beijing

Post Code: 100088

Applicant:	<b>ORIENTAL ENGINEERING CO., LTD.</b>	Date of Notification: Date: <u>02</u> Month: <u>04</u> Year: <u>2004</u>
Attorney:	<b>CHUANHONG LONG</b>	
Application No.:	<b>02102026.4</b>	
Title of the Invention:	<b>CARBURIZING METHOD AND CARBURIZING APPARATUS</b>	

## Notification of the First Office Action

1. ☒ The applicant requested examination as to substance and examination has been carried out on the above-identified patent application for invention under Article 35(1) of the Patent Law of the People's Republic of China(hereinafter referred to as "the Patent Law").  
☐ The Chinese Patent Office has decided to examine the application on its own initiative under Article 35(2) of the Patent Law.
2. ☒ The applicant claimed priority/priorities based on the application(s):  
filed in JP on Jan. 19, 2001, filed in \_\_\_\_\_ on \_\_\_\_\_,  
filed in \_\_\_\_\_ on \_\_\_\_\_, filed in \_\_\_\_\_ on \_\_\_\_\_,  
filed in \_\_\_\_\_ on \_\_\_\_\_, filed in \_\_\_\_\_ on \_\_\_\_\_,  
☒ The applicant has provided the priority documents certified by the Patent Office where the priority application(s) was/were filed.  
☐ The applicant has not provided the priority documents certified by the Patent Office where the priority application(s) was/were filed and therefore the priority claim(s) is/are deemed not to have been made under Article 30 of the Patent Law.  
☐ The application is a PCT continuation.
3. ☐ The applicant submitted amendments to the application on \_\_\_\_\_ and on \_\_\_\_\_, wherein the amended \_\_\_\_\_ submitted on \_\_\_\_\_ and the amended \_\_\_\_\_ submitted on \_\_\_\_\_ are not acceptable, because said amendments do not comply with ☐Article 33 of the Patent Law.  
☐Rule 51 of the Implementing Regulations of the Patent Law.  
The specific reasons why the amendments are not allowable are set forth in the text portion of this Notification.
4. ☒ Examination as to substance was directed to the initial application documents as filed.  
☐ Examination as to substance was directed to the documents as specified below:  
pages \_\_\_\_\_ of the description, claims \_\_\_\_\_ and pages \_\_\_\_\_ of the drawings submitted on \_\_\_\_\_,  
pages \_\_\_\_\_ of the description, claims \_\_\_\_\_ and pages \_\_\_\_\_ of the drawings submitted on \_\_\_\_\_,  
pages \_\_\_\_\_ of the description, claims \_\_\_\_\_ and pages \_\_\_\_\_ of the drawings submitted on \_\_\_\_\_,  
the abstract submitted on \_\_\_\_\_, and the figure for the abstract submitted on \_\_\_\_\_.
5. ☐ This Notification is issued without search reports.  
☒ This Notification is issued with consideration of the search results.  
☒ Below is/are the reference document(s) cited in this Office Action(the reference number(s) will be used throughout the examination procedure):

No.	Number(s) or Title(s) of Reference(s)	Date of Publication (or the filing date of conflicting application)
1	JP2000-129418A	Date: <u>9</u> Month: <u>5</u> Year: <u>2000</u>
2	US5828582A	Date: <u>27</u> Month: <u>10</u> Year: <u>1998</u>
3		Date: __ Month: __ Year: __
4		Date: __ Month: __ Year: __
5		Date: __ Month: __ Year: __

6. Conclusions of the Action:

☐ On the Specification:

- ☐ The subject matter contained in the application is not patentable under Article 5 of the Patent Law.
- ☐ The description does not comply with Article 26 paragraph 3 of the Patent Law.
- ☐ The draft of the description does not comply with Rule 18 of the Implementing Regulations.

☒ On the Claims:

- ☐ Claim(s) \_\_\_\_\_ is/are not patentable under Article 25 of the Patent Law.
- ☐ Claim(s) \_\_\_\_\_ does/do not comply with the definition of inventions prescribed by Rule 2 paragraph 1 of the Implementing Regulations.
- ☐ Claim(s) \_\_\_\_\_ does/do not possess the novelty as required by Article 22 paragraph 2 of the Patent Law.
- ☒ Claim(s) 1-8 does/do not possess the inventiveness as required by Article 22 paragraph 3 of the Patent Law.
- ☐ Claim(s) \_\_\_\_\_ does/do not possess the practical applicability as required by Article 22 paragraph 4 of the Patent Law.
- ☐ Claim(s) \_\_\_\_\_ does/do not comply with Article 26 paragraph 4 of the Patent Law.
- ☐ Claim(s) \_\_\_\_\_ does/do not comply with Article 31 paragraph 1 of the Patent Law.
- ☐ Claim(s) \_\_\_\_\_ does/do not comply with the provisions of Rules 20-23 of the Implementing Regulations.
- ☐ Claim(s) \_\_\_\_\_ does/do not comply with Article 9 of the Patent Law.
- ☐ Claim(s) \_\_\_\_\_ does/do not comply with the provisions of Rule 12 paragraph 1 of the Implementing Regulations.

7. In view of the conclusions set forth above, the Examiner is of the opinion that:

- ☐ The applicant should make amendments as directed in the text portion of the Notification.
- ☐ The applicant should expound in the response reasons why the application is patentable and make amendments to the application where there are deficiencies as pointed out in the text portion of the Notification, otherwise, the application will not be allowed.
- ☒ The application contains no allowable invention, and therefore, if the applicant fails to submit sufficient reasons to prove that the application does have merits, it will be rejected.
- ☐

8. The followings should be taken into consideration by the applicant in making the response:

- (1) Under Article 37 of the Patent Law, the applicant should respond to the office action within 4 months counting from the date of receipt of the Notification. If, without any justified reason, the time limit is not met, the application shall be deemed to have been withdrawn.
- (2) Any amendments to the application should be in conformity with the provisions of Article 33 of the Patent Law. Substitution pages should be in duplicate and the format of the substitution should be in conformity with the relevant provision contained in "The Examination Guidelines".
- (3) The response to the Notification and/or revision of the application should be mailed to or handed over to the "Reception Division" of the Patent Office, and documents not mailed or handed over to the Reception Divisions have no legal effect.
- (4) Without an appointment, the applicant and/or his agent shall not interview with the Examiner in the Patent Office.

9. This Notification contains a text portion of 2 pages and the following attachments:

- ☒ 2 cited reference(s), totaling 19 pages. ☐

Examination Dept. 9 Examiner: Zhang Qunfeng Seal of the Examination Department

### Text of the First Office Action

After examination, the following opinions are given:

1. Claim 1 seeks to protect a carburizing method. Reference 1 (JP 2000-129418 A, cf. the abstract and Fig 1) disclosed a carburizing method, which specifically subjects the steel parts 2 to a carburizing treatment with saturated chain hydrocarbon in the heating chamber 1 under a pressure of 1.33 to 13.3 kPa.

Claim 1 differs from the disclosure of Reference 1 in that (1) the carburizing gas contains not more than 30% by volume of carbon monoxide and (2) the carburization is carried out while analyzing the composition of the atmosphere gas and adjusting at least one of temperature, pressure and composition of the atmosphere gas according to the analysis result.

However, Reference 2 (US 5828582 A, cf. the specification, column 1 line 12 to column 6 line 60) disclosed a gas generator useful in carburizing metals, wherein the composition of the carburizing gas is adjusted by oxygen sensor or temperature sensor to maintain 40% of oxygen, 40% of hydrogen and 20% of carbon monoxide in the carburizing gas. So all the above different technical features have been disclosed in Reference 2, which belongs to the same technical field as this application

So it is obvious for those skilled in the art to get the technical solution of claim 1 by combining Reference 2 on the basis of Reference 1. Thus claim 1 does not possess the substantial features and does not represent the notable progress, i.e. does not possess the inventiveness as required by Article 22 (3) of the Chinese Patent Law.

2. All the additional technical features of claims 2-3 have been disclosed in Reference 2, so in the case of that the referred claim does not possess the inventiveness, all these claims do not possess the inventiveness as

required by Article 22 of the Chinese Patent Law either.

3. The additional technical feature of claim 4 is that "the composition of said atmosphere gas during carburization is analyzed by measuring a hydrogen amount in said atmosphere gas". But such a feature is a common means to those skilled in the art and fails to bring about any unexpected technical effects for this application. So in the case of that the referred claim does not possesses the inventiveness, this claim does not possess the substantial features and does not represent the notable progress, i.e. does not possess the inventiveness as required by Article 22 (3) of the Chinese Patent Law either.
4. Claim 5 seeks to protect a carburizing apparatus. Reference 1 (JP 2000-129418 A, cf. the abstract and Fig 1) disclosed a carburizing apparatus under a pressure of 1.33 to 13.3 kPa, which specifically comprises a carburizing chamber 1, heating means 3, pressure controlling means 7, gas supplying means 5.

The difference is that claim 5 further comprises the gas analysis means, the atmosphere gas composition adjustment means and the information display apparatus.

However, Reference 2 (US 5828582 A, cf. the specification, column 1 line 12 to column 6 line 60) disclosed a gas generator useful in carburizing metals, which comprises oxygen sensor or temperature sensor, gas composition adjustment means and the information display apparatus. So all the above different technical features have been disclosed in Reference 2, which belongs to the same technical field as this application.

So it is obvious for those skilled in the art to get the technical solution of claim 5 by combining Reference 2 on the basis of Reference 1. Thus claim 5 does not possess the substantial features and does not represent the notable progress, i.e. does not possess the inventiveness as required by



Article 22 (3) of the Chinese Patent Law.

5. All the additional technical features of claims 6-7 have been disclosed in Reference 2, so in the case of that the referred claim does not possess the inventiveness, all these claims do not possess the inventiveness as required by Article 22 of the Chinese Patent Law either.
6. The additional technical feature of claim 8 is that "the gas analysis means is a hydrogen sensor". But such a feature is a common means to those skilled in the art and fails to bring about any unexpected technical effects for this application. So in the case of that the referred claim does not possesses the inventiveness, this claim does not possess the substantial features and does not represent the notable progress, i.e. does not possess the inventiveness as required by Article 22 (3) of the Chinese Patent Law either.

Due to above reasons, this application can not be allowed. If the applicant could not make convincing observation during the designated period, this application might be rejected.